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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/546,626	07/27/2006	Karl Martin Ribbeck	1053-0001WOUS	3283

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EXAMINER

GATES, ERIC ANDREW

ART UNIT	PAPER NUMBER
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3726

MAIL DATE	DELIVERY MODE
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09/14/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/546,626	Applicant(s) RIBBECK, KARL MARTIN	
	Examiner ERIC A. GATES	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-22 and 24-32 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22 and 24-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 August 2009 has been entered.

Drawings

2. The replacement drawings were received on 27 August 2009. These drawings are acceptable.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 20, 21, 24, 27, 28, and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Wildhaber (U.S. Patent 1,667,299).

Art Unit: 3726

5. Regarding claim 20, Wildhaber discloses a profile-sharpened or profile-sharpened and additionally form-ground bar cutting blade 11 for milling spiral bevel gears and hypoid gears (see page 1, lines 12-19, and page 2, lines 87-91) comprising: a shank 17 with a cutting edge profile 18 formed at one end of the shank by the intersection of at least one rake surface 19 or 19', at least two flat clearance surfaces 20 (the sides may be straight or curved, see page 2, lines 82-83) and at least one top surface 22, said cutting edge profile including, for producing a tooth slot, a first cutting edge 24 for a first tooth flank, a second cutting edge 24 (on the other side of surface 19 as seen in figure 4) for at least a portion of the second tooth flank opposite said first tooth flank, and a top cutting edge 25 for at least a portion of the bottom of the tooth slot, and wherein the first and second cutting edges are adapted to completely cut the first and second tooth flanks respectively, and that the top cutting edge is adapted to completely cut the bottom of the tooth slot, thus enabling the tooth slot to be generated to a final geometry using one bar cutting blade in one milling pass (see page 2, lines 63-79), wherein the at least two clearance surfaces can be ground to provide profile-sharpening of the cutting blade (while Wildhaber does not distinctly disclose that the clearance surfaces are profile-sharpened, these surfaces are inherently capable of being ground in this way and as such the clearance surfaces of Wildhaber meet the limitations of the claim. Furthermore, the limitation profile-sharpened or profile-sharpened and additionally form-ground is a product-by-process limitation in which the determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production.).

Art Unit: 3726

6. Regarding claim 21, Wildhaber discloses wherein the cutting edge profile is formed by the intersection of one rake surface 19 with at least the two clearance surfaces 20 and the top surface 22.
7. Regarding claim 24, Wildhaber discloses wherein the first and second cutting edges have rake angles greater than about zero degrees (as seen in figure 6).
8. Regarding claim 27, Wildhaber discloses wherein the rake surface 19 is worked into the shank (as seen in figure 4).
9. Regarding claim 28, Wildhaber discloses wherein the rake surface 19' between the first and second cutting edges is curved in a concave configuration (as seen in figure 6).
10. Regarding claim 30, Wildhaber discloses wherein the bar cutting blade is mountable in an end face of a cutter head 10 on a circle and wherein a cutting end of the shank protrudes from the end face of the cutter head (as seen in figure 2).
11. Regarding claim 31, Wildhaber discloses wherein the first and second cutting edges define rake angles of about zero degrees (as seen in figure 4).
12. Regarding claim 32, Wildhaber discloses wherein the first and second cutting edges have rake angles of zero to minus ten degrees (zero degrees as seen in figure 4).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3726

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Wildhaber in view of Iizuka et al. (U.S. Patent Publication 2001/0028831 A1).

15. Regarding claim 22, Wildhaber discloses the invention substantially as claimed, except Wildhaber does not disclose wherein the cutting edge profile is formed by the intersection of two relatively angled rake surfaces with at least the two clearance surfaces and the top surface. Iizuka et al. teaches the use of a cutting blade 200 that has two cutting edges 203/205, a top surface 110, and a rake surface formed of two relatively angled rake surfaces 204/206 for the purpose of facilitating the removal of cutting chips produced in the cutting operation. Therefore it would have been obvious to one skilled in the art at the time of the invention to have combined the blade of Wildhaber with the angled rake surfaces of Iizuka et al. in order to have a tool that more effectively cuts the workpiece.

16. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wildhaber in view of Stadtfeld (U.S. Patent 5,944,587).

17. Regarding claims 25 and 26, Wildhaber discloses the invention substantially as claimed, except Wildhaber does not disclose wherein the first and second cutting edges have rake angles smaller than about zero degrees in either case, or wherein the first and second cutting edges have rake angles one of which is greater than about zero degrees and the other of which is smaller than about zero degrees. Stadtfeld teaches

Art Unit: 3726

the use of a cutting blade 2 comprising a cutting edge 18 that is formed at a rake angle of between -20 and +20 degrees for the purpose of design choice. Therefore it would have been obvious to one skilled in the art at the time of the invention to have combined the blade of Wildhaber with the desired rake angles as taught by Stadtfeld in order to have a cutting blade that has cutting edges that are formed at the optimum desired rake angles.

18. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wildhaber in view of Kotthaus (U.S. Patent 3,760,476).

19. Regarding claim 29, Wildhaber discloses the invention substantially as claimed, except Wildhaber does not distinctly disclose wherein for form-grinding the bar cutting blade at least one rake surface is a rake surface to be reground. Kotthaus teaches in the background of the invention that it is well known to regrind the rake surface (cutting face) of a bar tool bit, which is well known in the art to be done for the purpose of resharpening the cutting surfaces. Therefore it would have been obvious to one skilled in the art at the time of the invention to have combined the blade of Wildhaber with the teaching of Kotthaus in order to have a rake surface that is reground to resharpened the cutting surfaces.

Response to Arguments

20. Applicant's arguments filed 27 August 2009 have been fully considered but they are not persuasive.

Art Unit: 3726

21. Applicant's argument that "Wildhaber fails to disclose, teach, or suggest a profile-sharpened or profile-sharpened and additionally form ground bar cutting blade wherein at least two clearance surfaces can be ground to provide profile-sharpening of the cutting blade" is not persuasive because these limitations rely on a combination of product-by-process and capability limitations. Independent claim 20 is directed to a product with recited structure, and the structure of Wildhaber has been shown to meet the claimed structure.

22. For the reasons as set forth above, the rejections are maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC A. GATES whose telephone number is (571)272-5498. The examiner can normally be reached on Mon-Thurs 8:45 - 6:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric A. Gates/
Primary Examiner, Art Unit 3726
1 September 2009